ICF-C203

SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model
Australian Model

SPECIFICATIONS

Frequency range	Model for North and South America FM: 87.5 – 108 MHz AM: 530 – 1,710 kHz Model for other countries FM: 87.5 – 108 MHz AM: 531 – 1,602 kHz Intermediate frequency FM: 10.7 MHz AM: 450 kHz
Scan step	Model for North and South America FM: 0.1 MHz (fixed) AM: 10 kHz (fixed) Model for other countries FM: 0.05* MHz (fixed) AM: 9 kHz (fixed)

* The frequency display is raised or lowered by steps of 0.1 MHz. (Example: Frequency 88.05 MHz is displayed as "88.0 MHz".)

Antennas	FM: FM wire antenna AM: Built-in ferrite bar antenna
Speaker	Approx. 6.6 cm (2 5/8 inches) dia.
Power output	120 mW (at 10% harmonic distortion)
Power requirements	North and South American model: 120 V AC, 60 Hz UK model: 240 V AC, 50 Hz Other models: 220 – 230 V AC, 50 Hz
Dimensions	Approx. 201 x 59 x 146 mm (w/h/d) (8 x 2 3/8 x 5 3/4 inches) incl. projecting parts and controls
Weight	Approx. 600 g (1 lb 5 oz)
Accessory supplied	FM antenna coupler (1, Models for Netherlands, Belgium, Switzerland, Austria and Scandinavia only)

Design and specifications are subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

MICROFILM

FM/AM PLL SYNTHESIZED CLOCK RADIO

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

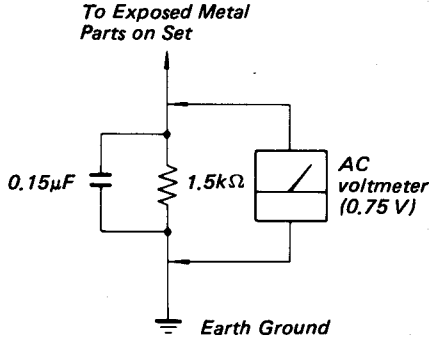
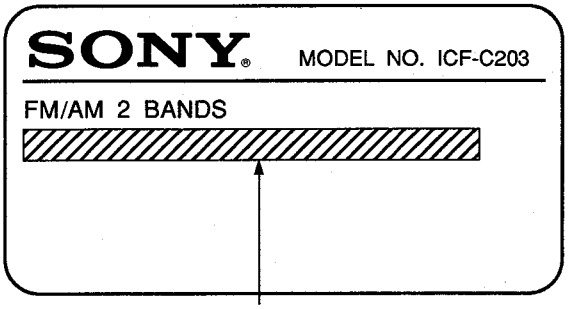


Fig. A. Using an AC voltmeter to check AC leakage.

MODEL IDENTIFICATION

— Specification Label —



US, CND model : AC : 120V 60Hz 3W
AUS model : AC : 240V~50Hz 3W
5AEC, AEC, AEZ, IT, E model : AC : 220—230V~50Hz 3W

CND : Canadian model
IT : Italian model
AUS : Australian model
AEC, 5AEC : North European model

SAFETY-RELATED COMPONENT WARNING!!

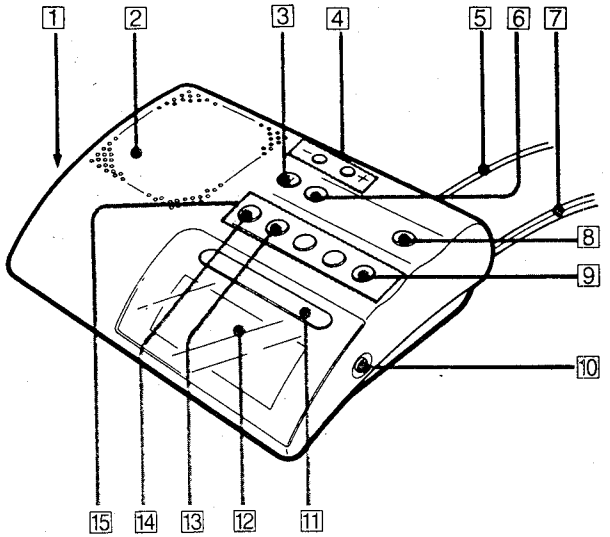
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

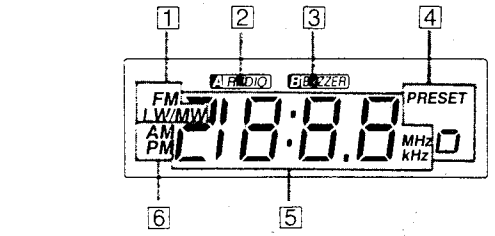
This section is extracted from instruction manual.

Location of Controls



1 VOL (volume) control (left side)
2 Speaker
3 ALARM RESET/RADIO OFF button
4 TIME SET/TUNE (tuning) + and – buttons
5 FM wire antenna
6 SLEEP/RADIO ON button
7 AC power cord
8 BAND button
9 ALARM MODE button
10 ENTER/CLOCK button
11 DREAM BAR SNOOZE/SLEEP OFF bar (North and South American model)
REPEAT ALARM/SLEEP OFF bar (other models)
12 Display window
13 B BUZZER ALARM button
14 A RADIO ALARM (WAKE UP STATION) button
15 Preset number 1 – 5 buttons

Display window



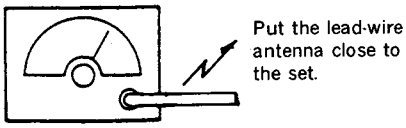
Display window

1 Band indication
2 A RADIO alarm indication
3 B BUZZER alarm indication
4 PRESET number indication
5 Time/frequency indication
6 AM/PM indication (North and South American and UK model only)

SECTION 2
ELECTRICAL ADJUSTMENTS

AM Section

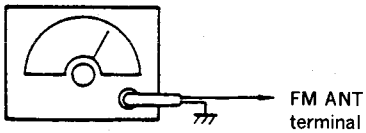
AM RF signal generator



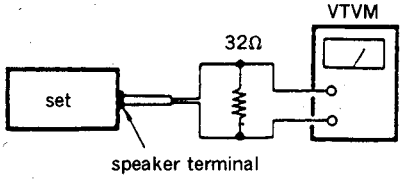
30 % amplitude modulation by 400Hz signal
Output level: as low as possible

FM Section

FM RF signal generator



±22.5kHz frequency deviation by 400Hz signal
Output level: as low as possible



- Repeat the procedures in each adjustment several times, and the tracking adjustments should be fimally the trimmer capacitors.

( ): EXCEPT US, CND model

AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	450kHz

Note : Receive 530kHz (531kHz).

AM VCO VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital voltmeter
L5	530kHz (531kHz)	1.2V
(confirmation)	1,710kHz (1,602kHz)	Less than 9V (Less than 8V)

Note : Not use the AM RF sigmal generator in this adjustment.

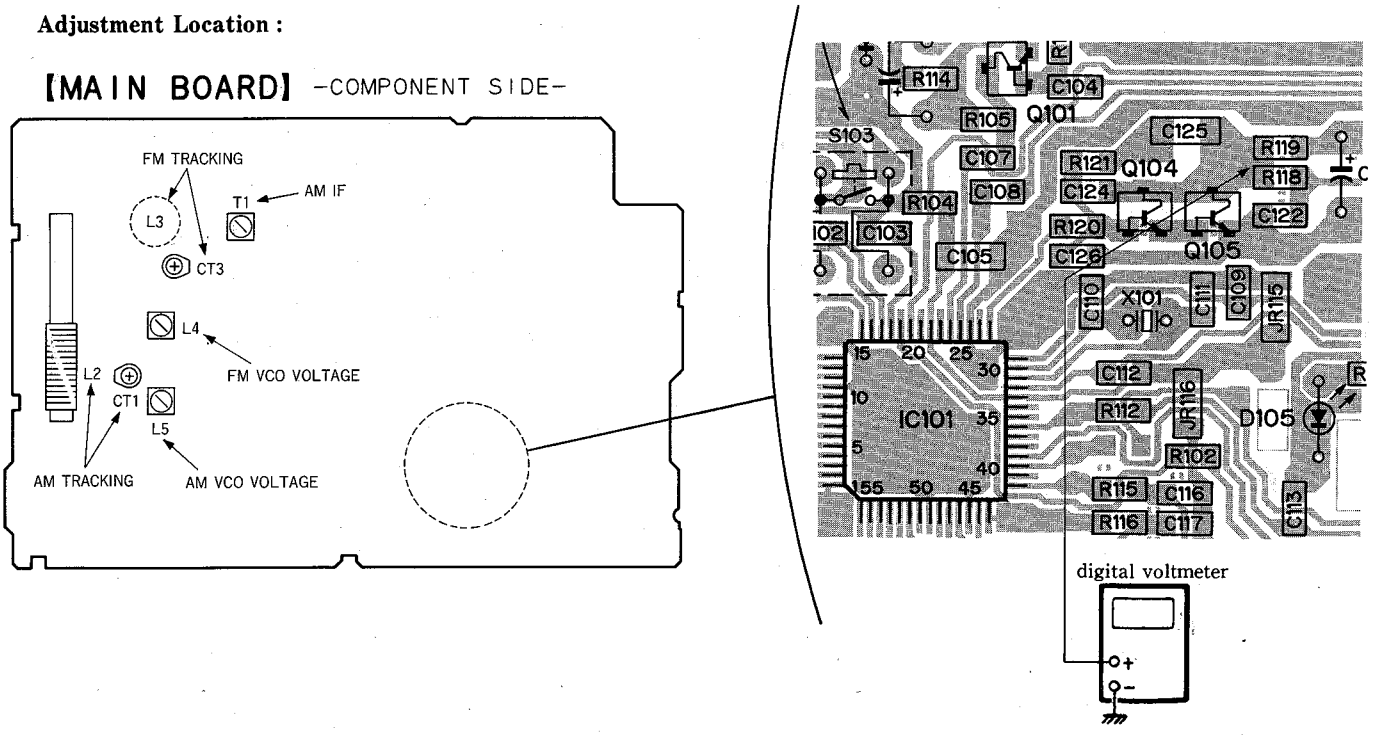
AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT1	L2
1,490kHz (1,404kHz)	580kHz (621kHz)

FM VCO VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital voltmeter
L4	108MHz	10±1.0V
(confirmation)	87.5MHz	More than 1.8V (Standard 2.2V)

Note : Not use the FM signal generator in this adjustment.

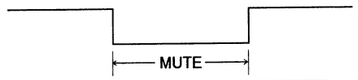
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT3	L3 (confirmation)
108MHz	87.5MHz

Adjustment Location :



SECTION 3
PIN DESCRIPTION

01 μPD1724GB-590-1P7

ı No.	Pin Name	Signal Name	I/O	Description
l-10	LCD10-LCD1	LCD10-LCD1	O	LCD drive
11	NC		—	
2-14	COM3-COM1	COM3-COM1	O	LCD common
15	VSS3		—	Pin for doubler circuit capacitor connection to develop LCD drive voltage
16	CAP2			
17	CAP1			
18	VSS2			
19	VDP	$\overline{\text{MUTE}}$	O	Audio signal mute. Active : Low. LOW when MUTE ON. 
20	CGP	BEEP	O	Activates buzzer.
21	NC		—	
22	VDD		—	3V power supply input terminal
23	VCOH		I	Unused pin
24	VCOM	FM VCO	I	FM VCO input
25	VCOL	AM VCO	I	AM VCO input
26	VSS1		—	GND
27	EO1		O	PLL error output pin
28	EO2			
29	CE	CE	I	Detects power supply line status. Power supply line OFF : Low Power supply line ON : High
30	XO		O	Crystal oscillator connection pin
31	XI		I	
32	VSS4		—	Pin for regulator circuit capacitor connection to attain stable drive voltage of the oscillator
33	PA3	AC/DC	I	AC/DC sellect input AC : High DC : Low
34	PA2	ALARM OUT	O	Unused pin
35	PA1	TV OUT	O	Unused pin
36	PA0	BATT/BAND AM	I/O	BATTERY CHECK input, BAND FM/AM output FM : Low AM : High
37	PB3	LIGHT	O	Unused pin
38	PB2	POWER	O	Unused pin
39	PB1	INITIALIZE	O	KEY IN control output
40	PB0	BAND LOW/TV H	O	Unused pin
41-44	PC3-PC0	KEY SOURCE	O	Conducts Key Scan
45-48	K3-K0	KEY RETURN	I	Key Return input
49, 50	NC		—	
51-56	LCD16-LCD11	LCD16-LCD11	O	LCD drive

SECTION 4
DIAGRAMS

Note:

- ○—— : parts extracted from the component side.

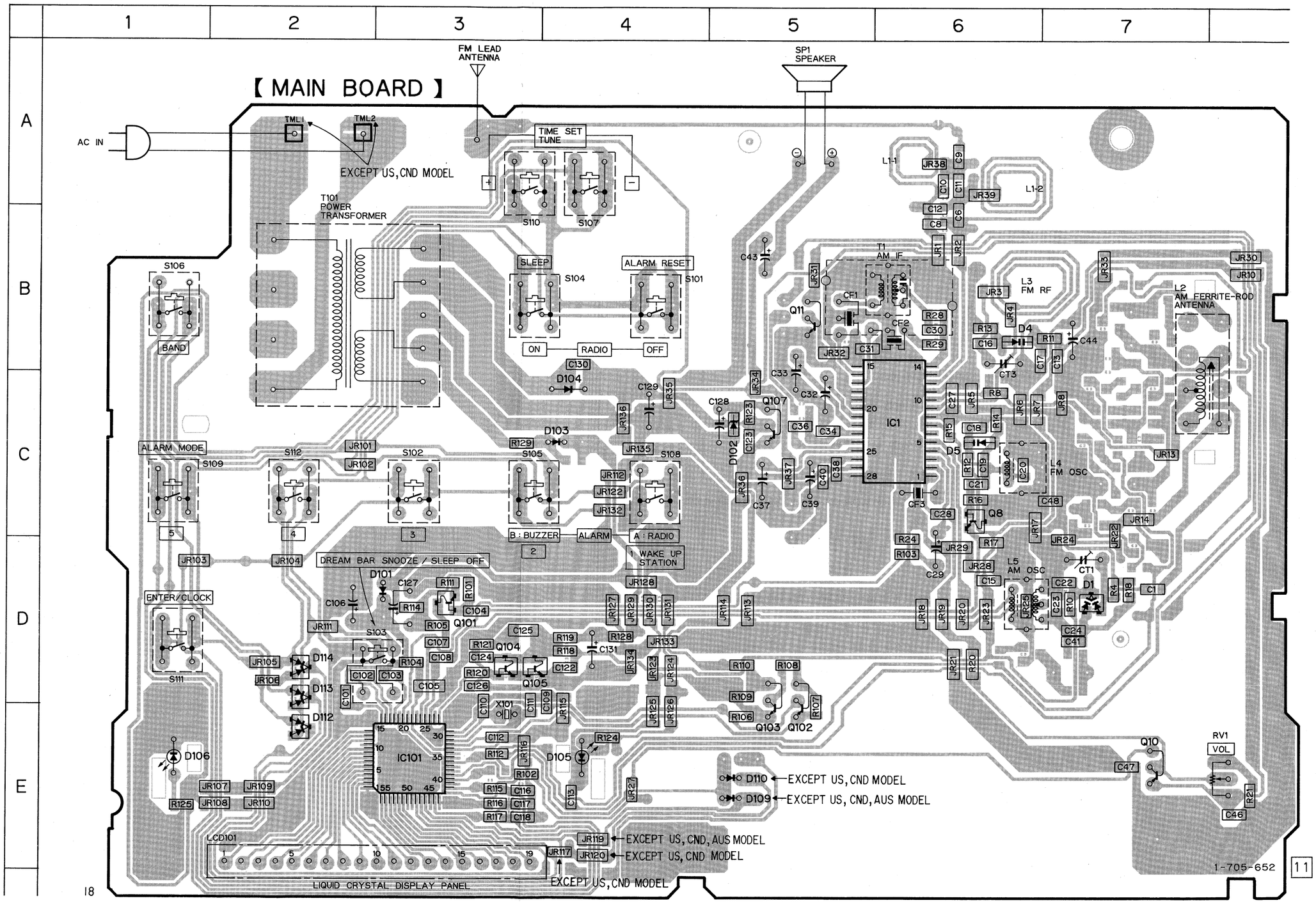
CND : Canadian
AEZ : AEP
AEC, 5AEC : North European
IT : Italian
AUS : Australian

4-1. PRINTED WIRING BOARD

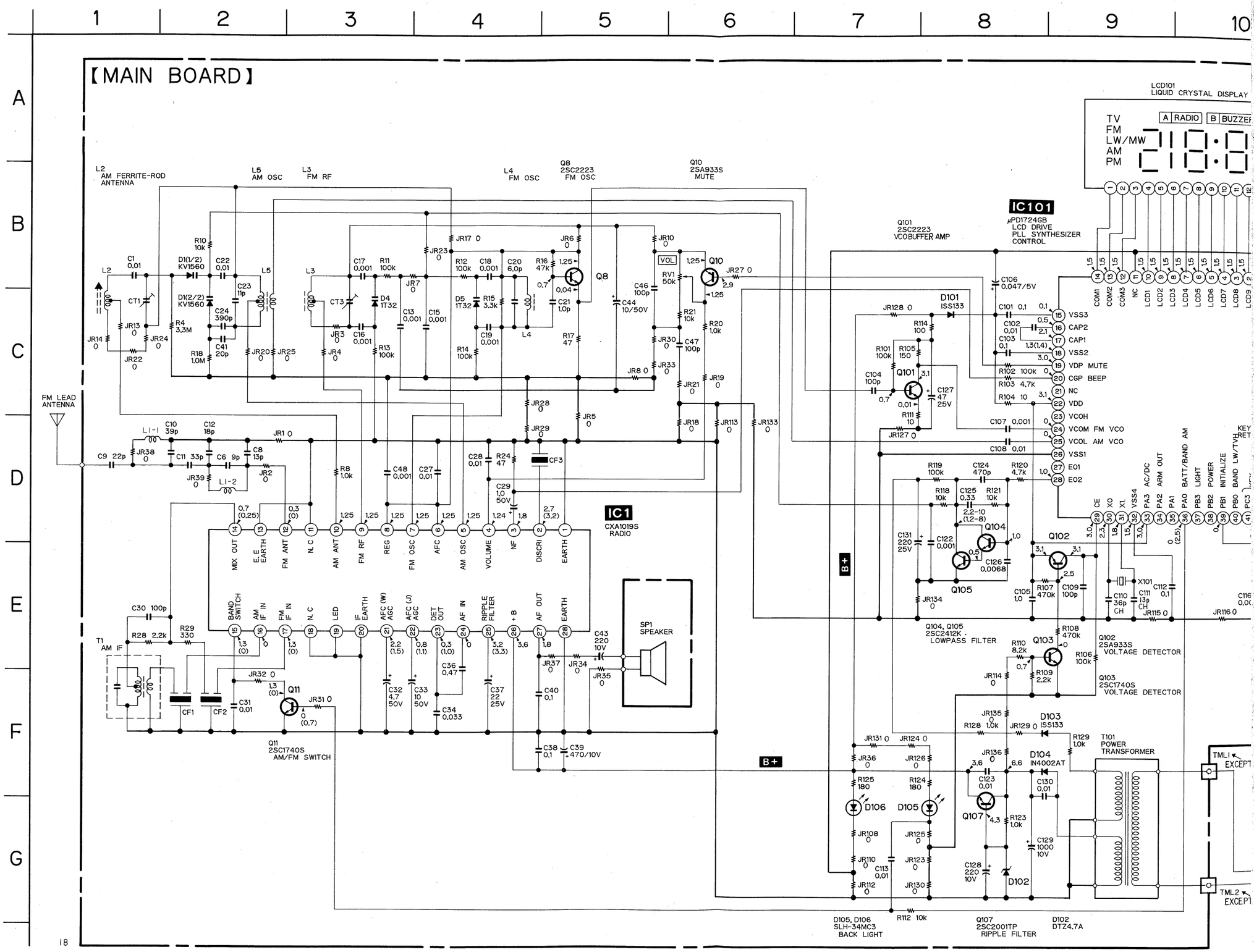
• Sss page 12 for Semiconductor Lead Layouts.

● **Semiconductor Location**

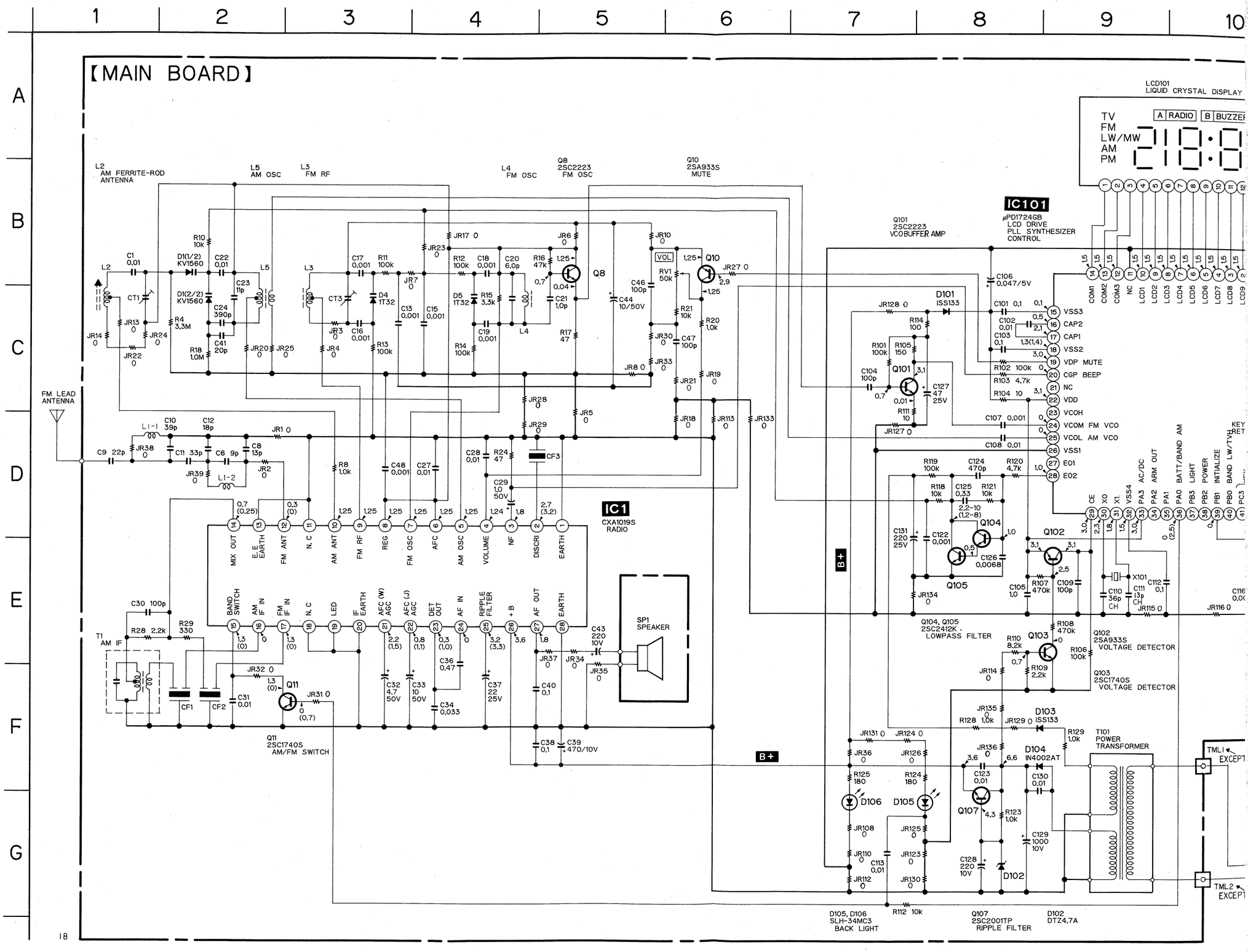
Ref. No.	Location
D1	D-7
D4	B-6
D5	C-6
D101	D-3
D102	C-5
D103	C-4
D104	C-4
D105	E-4
D106	E-1
D109	E-5
D110	E-5
D112	E-2
D113	D-2
D114	D-2
IC1	C-6
IC101	E-3
Q8	C-6
Q10	E-7
Q11	B-5
Q101	D-3
Q102	D-5
Q103	D-5
Q104	D-3
Q105	D-3
Q107	C-5



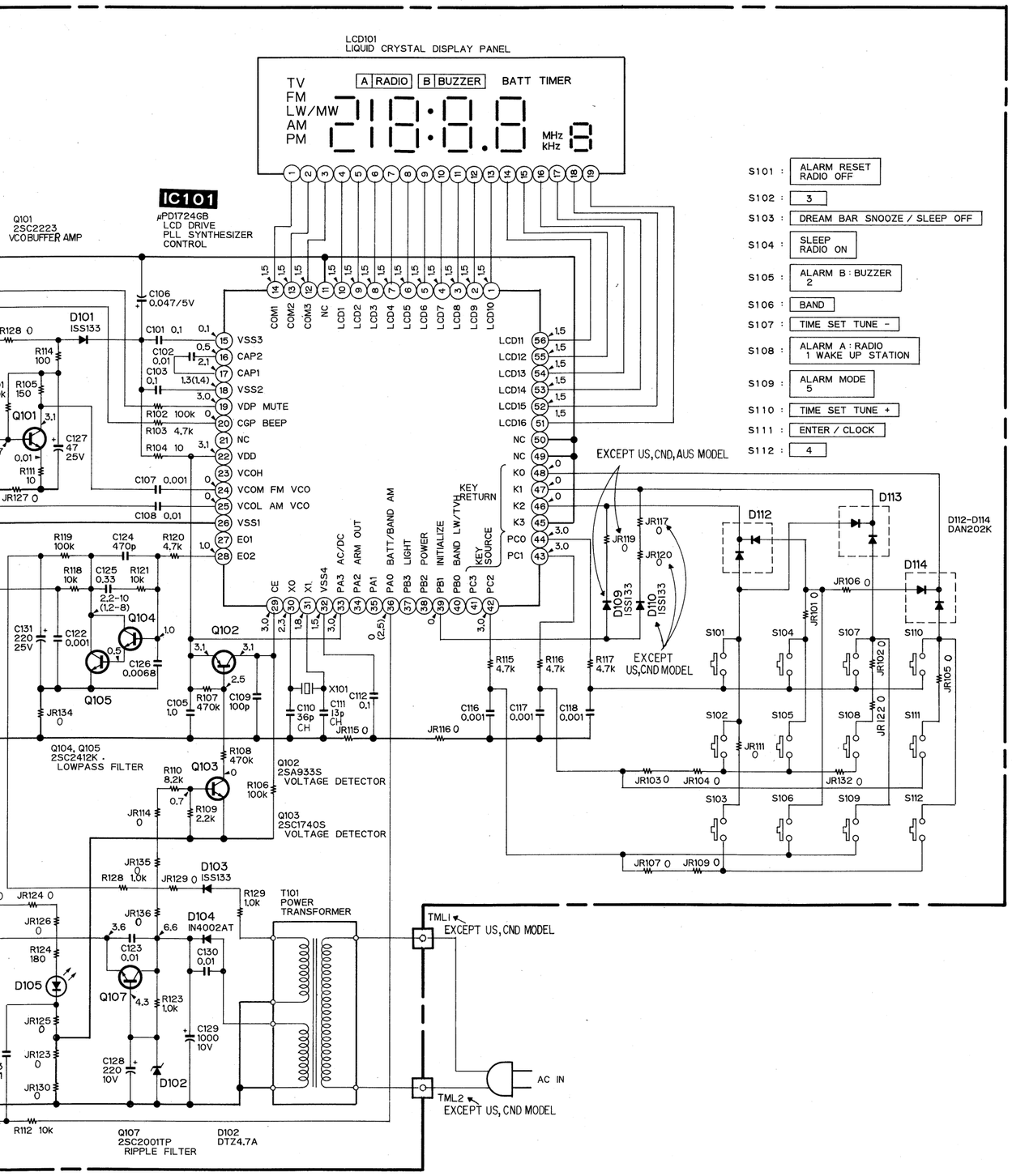
4-2. SCHEMATIC DIAGRAM



4-2. SCHEMATIC DIAGRAM

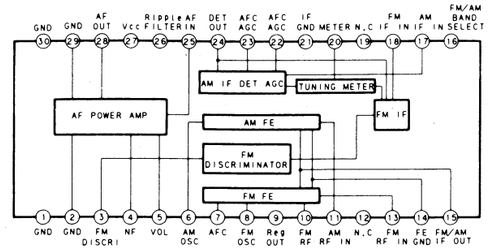


8 9 10 11 12 13



● IC Block Diagram

IC1 CXA1019M



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.

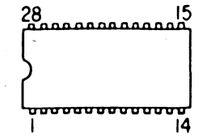
Note:	**Note:**
The components identified by mark △! or dotted line with mark △! are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △! sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

CND : Canadian
AEZ : AEP
AEC, 5AEC : North European
IT : Italian
AUS : Australian

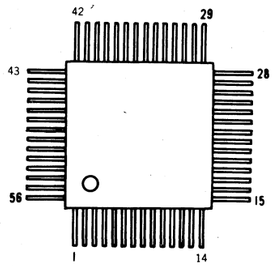
4-2. SEMICONDUCTOR LEAD LAYOUTS

CXA1019M



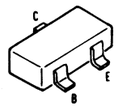
(Top view)

μPD1724GB-590-1P7



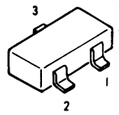
MARKING SIDE VIEW

2SA1162-G
2SC1623-L5L6
2SC2223-F13
2SC2223-F14

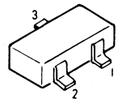


2SC2001-LK

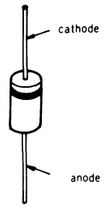
KV1560
MA152WK



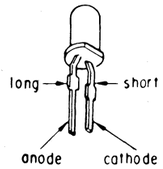
1S2836



10E2

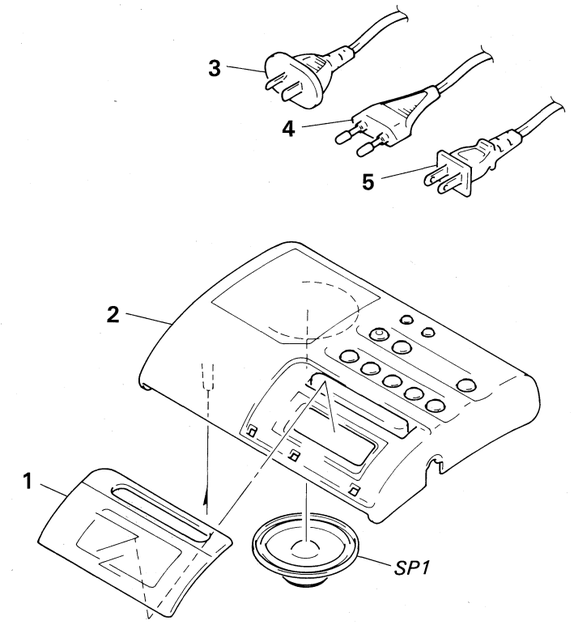


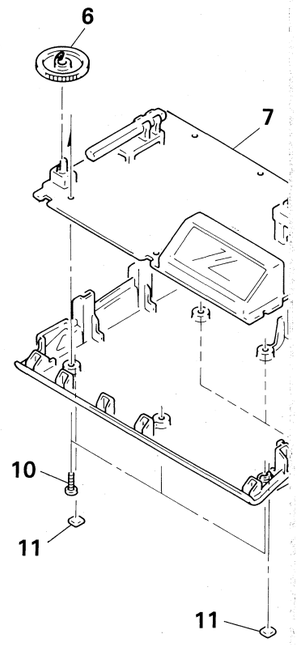
GL3EG8



SECTION 5
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE(WHITE)...(RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.





Ref. No.	Part No.	Description	Remark
1	3-377-646-01	PLATE, TRANSPARENT	
2	X-3365-427-1	CABINET (U) ASSY (GRAY) (US, CND)	
2	X-3365-427-2	CABINET (U) ASSY (WHITE) (US, CND)	
2	X-3365-484-1	CABINET (U) ASSY (GRAY) (AEZ, 5AEC, AEC, E, IT, AUS)	
2	X-3365-484-2	CABINET (U) ASSY (WHITE) (AEZ, 5AEC, AEC, E, IT, AUS)	
⚠3	1-559-912-11	CORD, POWER (AUS)	
⚠4	1-551-958-21	CORD, POWER (WHITE) (AEZ, 5AEC, AEC, E, IT)	
⚠4	1-555-795-00	CORD, POWER (GRAY) (AEZ, 5AEC, AEC, E, IT)	
⚠5	1-696-008-11	CORD, POWER (GRAY) (US, CND)	
⚠5	1-696-008-21	CORD, POWER (WHITE) (US, CND)	
6	3-368-840-01	KNOB (VOL) (GRAY)	
6	3-368-840-11	KNOB (VOL) (WHITE)	

Ref. No.	Part No.	Descrip
* 7	A-3679-397-A	MAIN BO
* 7	A-3679-398-A	MAIN BO
* 7	A-3679-408-A	MAIN BO
8	3-377-653-01	CABINET
8	3-377-653-11	CABINET
8	3-377-653-21	CABINET
8	3-377-653-31	CABINET
8	3-377-653-41	CABINET
8	3-377-653-51	CABINET
9	3-377-647-01	BUTTON
9	3-377-647-11	BUTTON
10	7-685-649-79	SCREW +
11	3-368-852-01	FOOT
SP1	1-503-082-00	SPEAKER

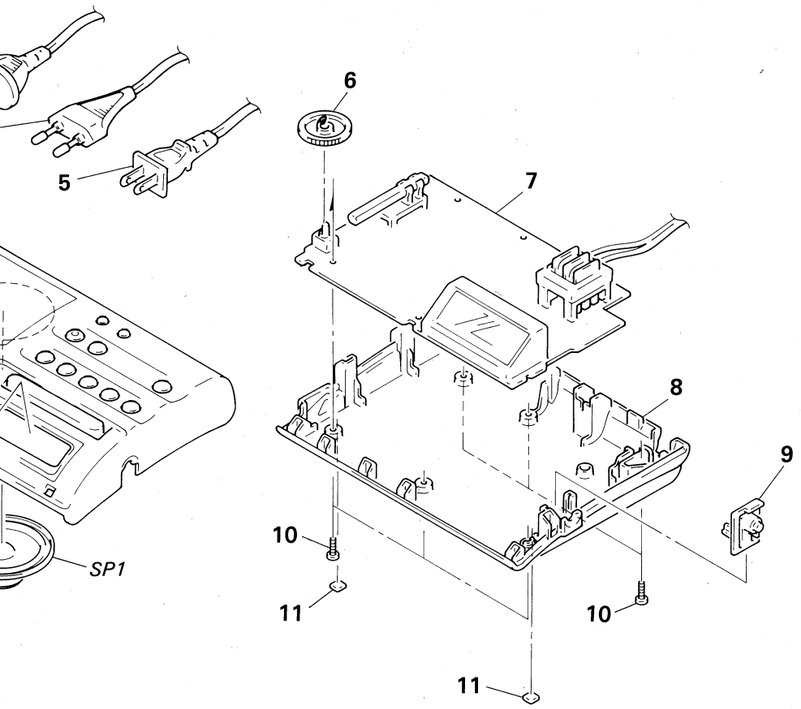
SECTION 5
EXPLODED VIEWS

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

olor

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CND : Canadian
AEZ : AEP
AEC, 5AEC : North European
IT : Italian
AUS : Australian



	Remark
ISPARENT	
ASSY (GRAY) (US, CND)	
ASSY (WHITE) (US, CND)	
ASSY (GRAY)	
(AEZ, 5AEC, AEC, E, IT, AUS)	
ASSY (WHITE)	
(AEZ, 5AEC, AEC, E, IT, AUS)	
(AUS)	
(WHITE)	
(AEZ, 5AEC, AEC, E, IT)	
(GRAY)	
(AEZ, 5AEC, AEC, E, IT)	
(GRAY) (US, CND)	
(WHITE) (US, CND)	
(GRAY)	
(WHITE)	

Ref. No.	Part No.	Description	Remark
* 7	A-3679-397-A	MAIN BOARD, COMPLETE (AEZ, 5AEC, AEC, E, IT)	
* 7	A-3679-398-A	MAIN BOARD, COMPLETE (AUS)	
* 7	A-3679-408-A	MAIN BOARD, COMPLETE (US, CND)	
8	3-377-653-01	CABINET (LOWER) (GRAY) (US, CND)	
8	3-377-653-11	CABINET (LOWER) (WHITE) (US, CND)	
8	3-377-653-21	CABINET (LOWER) (GRAY) (AEZ, 5AEC, AEC, E, IT)	
8	3-377-653-31	CABINET (LOWER) (WHITE) (AEZ, 5AEC, AEC, E, IT)	
8	3-377-653-41	CABINET (LOWER) (GRAY) (AUS)	
8	3-377-653-51	CABINET (LOWER) (WHITE) (AUS)	
9	3-377-647-01	BUTTON (MODE) (GRAY)	
9	3-377-647-11	BUTTON (MODE) (WHITE)	
10	7-685-649-79	SCREW +P 3X14 TYPE2 NON-SLIT	
11	3-368-852-01	FOOT	
SP1	1-503-082-00	SPEAKER	

SECTION 6
ELECTRICAL PARTS LIST

MAIN

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CND : Canadian
AEZ : AEP
AEC, 5AEC : North European
IT : Italian
AUS : Australian

Ref. No.	Part No.	Description			Remark
*	A-3679-408-A	MAIN BOARD, COMPLETE			
		**********			
	3-382-614-01	PLATE SHIELD			
	3-377-648-01	HOLDER (LED)			
*	3-377-650-01	FRAME, REFLECTION			
		< CAPACITOR >			
C1	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C6	1-163-092-00	CERAMIC CHIP	9PF	0.25PF	50V
C8	1-163-096-00	CERAMIC CHIP	13PF	5%	50V
C9	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C10	1-163-107-00	CERAMIC CHIP	39PF	5%	50V
C11	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C12	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C13	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C15	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C16	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C17	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C18	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C19	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C20	1-163-089-00	CERAMIC CHIP	6PF		50V
C21	1-163-083-00	CERAMIC CHIP	1PF		50V
C22	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C23	1-163-094-00	CERAMIC CHIP	11PF	5%	50V
C24	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C27	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C28	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C29	1-124-903-11	ELECT	1uF	20%	50V
C30	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C31	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C32	1-124-927-11	ELECT	4.7uF	20%	100V
C33	1-124-907-11	ELECT	10uF	20%	50V
C34	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V

Ref. No.	Part No.	Description			Remark
C36	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C37	1-126-233-11	ELECT	22uF	20%	50V
C38	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C39	1-124-472-11	ELECT	470uF	20%	10V
C40	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C41	1-163-100-00	CERAMIC CHIP	20PF	5%	50V
C43	1-126-176-11	ELECT	220uF	20%	10V
C44	1-124-907-11	ELECT	10uF	20%	50V
C46	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C47	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C48	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C101	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C102	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C103	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C104	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C105	1-162-638-11	CERAMIC CHIP	1uF		16V
C106	1-125-701-11	CAP, DOUBLE LAYEYER	0.047F		5V
C107	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C109	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C110	1-163-106-00	CERAMIC CHIP	36PF	5%	50V
C111	1-163-096-00	CERAMIC CHIP	13PF	5%	50V
C112	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C113	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C116	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C117	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C118	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C122	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C124	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C125	1-164-006-11	CERAMIC CHIP	0.33uF	10%	16V
C126	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C127	1-124-477-11	ELECT	47uF	20%	25V
C128	1-126-176-11	ELECT	220uF	20%	10V

Ref. No.	Part No.	Description			Remark
C129	1-126-926-11	ELECT	1000uF	20%	10V
C130	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C131	1-128-483-11	ELECT	220uF	20%	25V
		< FILTER >			
CF1	1-578-677-21	FILTER, CERAMIC			
CF2	1-579-632-11	FILTER, CERAMIC			
CF3	1-579-632-11	FILTER, CERAMIC			
		< TRIMMER >			
CT1	1-141-304-21	CAP, TRIMMER	10PF		
CT3	1-141-304-21	CAP, TRIMMER	10PF		
		< DIODE >			
D1	8-719-951-05	DIODE	KV1560		
D4	8-719-949-46	DIODE	1T32		
D5	8-719-949-46	DIODE	1T32		
D101	8-719-028-22	DIODE	1SS133-T95		
D102	8-719-976-94	DIODE	DTZ4.7A		
D103	8-719-028-22	DIODE	1SS133-T95		
D104	8-719-200-02	DIODE	10E-2		
D105	8-719-938-67	LED	GL3EG8 (BACK LIGHT)		
D106	8-719-938-67	LED	GL3EG8 (BACK LIGHT)		
D109	8-719-028-22	DIODE	1SS133-T95 (AEZ, 5AEC, AEC, IT, E)		
D110	8-719-028-22	DIODE	1SS133-T95 (AEZ, 5AEC, 5AEC, IT, E, AUS)		
D112	8-719-400-18	DIODE	MA152WK		
D113	8-719-400-18	DIODE	MA152WK		
D114	8-719-400-18	DIODE	MA152WK		
		< IC >			
IC1	8-729-120-28	IC	CXA1019M		
IC101	8-759-073-88	IC	uPD1724GB-590-1P7		
		< JUMPER RESISTOR >			
JR1	1-216-296-00	METAL CHIP	0	5%	1/8W
JR2	1-216-296-00	METAL CHIP	0	5%	1/8W
JR3	1-216-296-00	METAL CHIP	0	5%	1/8W
JR4	1-216-295-00	METAL CHIP	0	5%	1/10W
JR5	1-216-296-00	METAL CHIP	0	5%	1/8W
JR6	1-216-296-00	METAL CHIP	0	5%	1/8W
JR7	1-216-296-00	METAL CHIP	0	5%	1/8W
JR8	1-216-295-00	METAL CHIP	0	5%	1/10W
JR10	1-216-296-00	METAL CHIP	0	5%	1/8W
JR13	1-216-295-00	METAL CHIP	0	5%	1/10W
JR14	1-216-296-00	METAL CHIP	0	5%	1/8W
JR17	1-216-296-00	METAL CHIP	0	5%	1/8W
JR18	1-216-296-00	METAL CHIP	0	5%	1/8W

Ref. No.	Part No.	Description			Remark
JR19	1-216-296-00	METAL CHIP	0	5%	1/8W
JR20	1-216-296-00	METAL CHIP	0	5%	1/8W
JR21	1-216-296-00	METAL CHIP	0	5%	1/8W
JR22	1-216-295-00	METAL CHIP	0	5%	1/10W
JR23	1-216-296-00	METAL CHIP	0	5%	1/8W
JR24	1-216-295-00	METAL CHIP	0	5%	1/10W
JR25	1-216-295-00	METAL CHIP	0	5%	1/10W
JR27	1-216-295-00	METAL CHIP	0	5%	1/10W
JR28	1-216-296-00	METAL CHIP	0	5%	1/8W
JR29	1-216-296-00	METAL CHIP	0	5%	1/8W
JR30	1-216-296-00	METAL CHIP	0	5%	1/8W
JR31	1-216-295-00	METAL CHIP	0	5%	1/10W
JR32	1-216-296-00	METAL CHIP	0	5%	1/8W
JR33	1-216-296-00	METAL CHIP	0	5%	1/8W
JR34	1-216-295-00	METAL CHIP	0	5%	1/10W
JR35	1-216-296-00	METAL CHIP	0	5%	1/8W
JR36	1-216-296-00	METAL CHIP	0	5%	1/8W
JR37	1-216-296-00	METAL CHIP	0	5%	1/8W
JR38	1-216-295-00	METAL CHIP	0	5%	1/10W
JR39	1-216-296-00	METAL CHIP	0	5%	1/8W
JR101	1-216-296-00	METAL CHIP	0	5%	1/8W
JR102	1-216-296-00	METAL CHIP	0	5%	1/8W
JR103	1-216-296-00	METAL CHIP	0	5%	1/8W
JR104	1-216-296-00	METAL CHIP	0	5%	1/8W
JR105	1-216-296-00	METAL CHIP	0	5%	1/8W
JR106	1-216-295-00	METAL CHIP	0	5%	1/10W
JR107	1-216-296-00	METAL CHIP	0	5%	1/8W
JR108	1-216-296-00	METAL CHIP	0	5%	1/8W
JR109	1-216-296-00	METAL CHIP	0	5%	1/8W
JR110	1-216-296-00	METAL CHIP	0	5%	1/8W
JR111	1-216-296-00	METAL CHIP	0	5%	1/8W
JR112	1-216-295-00	METAL CHIP	0	5%	1/10W
JR113	1-216-296-00	METAL CHIP	0	5%	1/8W
JR114	1-216-296-00	METAL CHIP	0	5%	1/8W
JR115	1-216-296-00	METAL CHIP	0	5%	1/8W
JR116	1-216-296-00	METAL CHIP	0	5%	1/8W
JR117	1-216-295-00	METAL CHIP	0	5%	1/10W (AEZ, 5AEC, AEC, IT, E, AUS)
JR119	1-216-296-00	METAL CHIP	0	5%	1/8W (AEZ, 5AEC, AEC, IT, E)
JR120	1-216-296-00	METAL CHIP	0	5%	1/8W (AEZ, 5AEC, AEC, IT, E, AUS)
JR122	1-216-296-00	METAL CHIP	0	5%	1/8W
JR123	1-216-295-00	METAL CHIP	0	5%	1/10W
JR124	1-216-296-00	METAL CHIP	0	5%	1/8W
JR125	1-216-296-00	METAL CHIP	0	5%	1/8W
JR126	1-216-296-00	METAL CHIP	0	5%	1/8W
JR127	1-216-296-00	METAL CHIP	0	5%	1/8W

MAIN

Ref. No.	Part No.	Description			Remark
JR128	1-216-296-00	METAL CHIP	0	5%	1/8W
JR129	1-216-296-00	METAL CHIP	0	5%	1/8W
JR130	1-216-296-00	METAL CHIP	0	5%	1/8W
JR131	1-216-296-00	METAL CHIP	0	5%	1/8W
JR132	1-216-296-00	METAL CHIP	0	5%	1/8W
JR133	1-216-296-00	METAL CHIP	0	5%	1/8W
JR134	1-216-295-00	METAL CHIP	0	5%	1/10W
JR135	1-216-296-00	METAL CHIP	0	5%	1/8W
JR136	1-216-296-00	METAL CHIP	0	5%	1/8W
		< COIL >			
L2	1-402-616-11	ANTENNA, FERRITE-ROD (MW)			
L4	1-460-335-11	COIL (WITH CORE)			
L5	1-406-485-11	COIL (OSC)			
		< LIQUID CRYSTAL DISPLAY >			
LCD101	1-809-711-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< TRANSISTOR >			
Q8	8-729-102-07	TRANSISTOR	2SC2223-F13		
Q10	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q11	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q101	8-729-102-07	TRANSISTOR	2SC2223-F13		
Q102	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q103	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q104	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q105	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q107	8-729-142-46	TRANSISTOR	2SC2001-LM		
		< RESISTOR >			
R4	1-216-133-00	METAL CHIP	3.3M	5%	1/10W
R8	1-216-049-00	METAL CHIP	1K	5%	1/10W
R10	1-216-073-00	METAL CHIP	10K	5%	1/10W
R11	1-216-097-00	METAL CHIP	100K	5%	1/10W
R12	1-216-097-00	METAL CHIP	100K	5%	1/10W
R13	1-216-097-00	METAL CHIP	100K	5%	1/10W
R14	1-216-097-00	METAL CHIP	100K	5%	1/10W
R15	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R16	1-216-089-00	METAL CHIP	47K	5%	1/10W
R17	1-216-017-00	METAL CHIP	47	5%	1/10W
R18	1-216-121-00	METAL CHIP	1M	5%	1/10W
R20	1-216-198-00	METAL CHIP	1K	5%	1/8W
R21	1-216-073-00	METAL CHIP	10K	5%	1/10W
R24	1-216-017-00	METAL CHIP	47	5%	1/10W
R28	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R29	1-216-037-00	METAL CHIP	330	5%	1/10W
R101	1-216-097-00	METAL CHIP	100K	5%	1/10W
R102	1-216-097-00	METAL CHIP	100K	5%	1/10W
R103	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R104	1-216-001-00	METAL CHIP	10	5%	1/10W
R105	1-216-029-00	METAL CHIP	150	5%	1/10W
R106	1-216-097-00	METAL CHIP	100K	5%	1/10W
R107	1-216-113-00	METAL CHIP	470K	5%	1/10W
R108	1-216-113-00	METAL CHIP	470K	5%	1/10W
R109	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R110	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R111	1-216-001-00	METAL CHIP	10	5%	1/10W
R112	1-216-073-00	METAL CHIP	10K	5%	1/10W
R114	1-216-025-00	METAL CHIP	100	5%	1/10W
R115	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R116	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R117	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R118	1-216-073-00	METAL CHIP	10K	5%	1/10W
R119	1-216-097-00	METAL CHIP	100K	5%	1/10W
R120	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R121	1-216-073-00	METAL CHIP	10K	5%	1/10W
R123	1-216-049-00	METAL CHIP	1K	5%	1/10W
R124	1-216-031-00	METAL CHIP	180	5%	1/10W
R125	1-216-031-00	METAL CHIP	180	5%	1/10W
R128	1-216-049-00	METAL CHIP	1K	5%	1/10W
R129	1-216-049-00	METAL CHIP	1K	5%	1/10W
		< VARIABLE RESISTOR >			
RV1	1-241-586-11	RES, VAR, CARBON 50K (VOL)			
		< SWITCH >			
S101	1-554-937-11	SWITCH, KEY BOARD (ALARM RESET, RADIO OFF)			
S102	1-554-937-11	SWITCH, KEY BOARD (3)			
S103	1-554-937-11	SWITCH, KEY BOARD (DREAM BAR SNOOZE/SLEEP OFF)			
S104	1-554-937-11	SWITCH, KEY BOARD (SLEEP RADIO ON)			
S105	1-554-937-11	SWITCH, KEY BOARD (ALARM B:BUZZER, 2)			
S106	1-554-937-11	SWITCH, KEY BOARD (BAND)			
S107	1-554-937-11	SWITCH, KEY BOARD (TIME SET TUNE -)			
S108	1-554-937-11	SWITCH, KEY BOARD (ARARM A:RADIO, 1, WAKE UP STATION)			
S109	1-554-937-11	SWITCH, KEY BOARD (ALARM MODE, 5)			
S110	1-554-937-11	SWITCH, KEY BOARD (TIME SET TUNE +)			
S111	1-554-937-11	SWITCH, KEY BOARD (ENTER/CLOCK)			
S112	1-554-937-11	SWITCH, KEY BOARD (4)			
		< TRANSFORMER >			
T1	1-404-790-11	TRANSFORMER, IF			
⚠T101	1-450-922-11	TRANSFORMER, POWER (US, CND)			
⚠T101	1-450-923-11	TRANSFORMER, POWER (EXCEPT US, CND)			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		< TERMINAL >	
* TML1	1-535-771-11	TERMINAL (AEZ, 5AEC, AEC, IT, E, AUS)	
* TML2	1-535-771-11	TERMINAL (AEZ, 5AEC, AEC, IT, E, AUS)	
		< VIBRATOR >	
X101	1-567-769-11	VIBRATOR, CRYSTAL	
**********			
		MISCELLANEOUS	
		**********	
⚠3	1-559-912-11	CORD, POWER (AUS)	
⚠4	1-551-958-21	CORD, POWER (WHITE) (AEZ, 5AEC, AEC, E, IT)	
⚠4	1-555-795-00	CORD, POWER (GRAY) (AEZ, 5AEC, AEC, E, IT)	
⚠5	1-696-008-11	CORD, POWER (GRAY) (US, CND)	
⚠5	1-696-008-21	CORD, POWER (WHITE) (US, CND)	
SP1	1-503-082-00	SPEAKER	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-501-499-11	COUPLER, ANTENNA (5AEC)	
*	3-378-689-01	INDIVIDUAL CARTON (US)	
*	3-378-690-01	INDIVIDUAL CARTON (CND)	
*	3-378-691-01	INDIVIDUAL CARTON (AEZ, 5AEC, AEC, E, IT, AUS)	
	3-755-141-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH) (CND, AEZ, 5AEC, AEC, E, AUS)	
	3-755-141-21	MANUAL, INSTRUCTION (ENGLISH) (US)	
	3-755-141-41	MANUAL, INSTRUCTION (PORTUGUESE, DUTCH, SWEDISH, ITALIAN) (5AEC, AEC, IT)	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.